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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,345	04/29/2004	Scott LaDell Vance	U04.0033.84	3344

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EXAMINER	
HUANG, WEN WU	
ART UNIT	PAPER NUMBER
2618	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/709,345	VANCE, SCOTT LADELL	
	Examiner	Art Unit	
	Wen W. Huang	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 January 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-5,9-15,17,18,20-22,25-31,33,35-37 and 40-48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-5,9-15,17,18,20-22,25-31,33,35-37 and 40-48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1, 3-5, 12-15, 17, 18, 21, 22, 25-27, 31, 33, 36, 37 and 40-42 are rejected under 35 U.S.C. 102(e) as being anticipated by Lenz (US. 5,101,504).

Regarding **claim 1**, Lenz teaches a device for hands-free push-to-talk functionality (see Lenz, col. 1, lines 53-55; fig. 1), comprising:

a hands-free push-to-talk sensor or switch (see Lenz, fig. 2, component 24; col. 2, lines 44-47) operable by at least one of a predetermined movement of the sensor or switch (see Lenz, fig. 1, Sb; col. 2, lines 47-51; a lifting movement upward by the wearer's shoulder), or air pressure, wherein the push-to-talk sensor or switch includes at least one of an accelerometer, an air pressure sensitive switch, and a tilt sensor for sensing a change in a direction of force due to gravity (see Lenz, fig. 2, component 34; col. 2, lines 59-62; switch 24 senses a depression in the downward direction; the

Examiner submits interprets the direction of force due to gravity as "downward" direction); and

means to control operation of a communications device in response to signals from the push-to-talk sensor or switch (see Lenz, col. 2, lines 28-30).

Regarding **claim 3**, Lenz also teaches the device of claim 1, wherein the push-to-talk sensor or switch comprises the tilt sensor (see Lenz, fig. 2, components 24 and 30), wherein a transmit mode of the communications device is activated in response to the tilt sensor being tilted (see Lenz, col. 2, lines 28-30) more than a predetermined angle from a normalized angle (see Lenz, fig. 2, component 34; col. 1, lines 61-63 and col. 2, lines 59-62) for a predetermined time duration (see Lenz, col. 3, lines 31-35).

Regarding **claims 4**, Lenz also teaches the device of claim 3, further comprising means for maintaining the communications device in the transmit mode in response to at least one of detecting a voice signal or the tilt sensor being tilted more than the predetermined angle (see Lenz, col. 3, lines 31-35) after a selected time delay (see Lenz, col. 3, lines 40-43; the "click" noise presents a selected time delay).

Regarding **claim 5**, Lenz also teaches the device of claim 3, further comprising means for switching the communications device to one of a receive mode or standby mode in response to an absence of at least one of detecting a voice signal or the tilt sensor being tilted more than the predetermined angle (see Lenz, col. 3, lines 31-33)

after a selected time delay (see Lenz, col. 3, lines 40-43; the "click" noise presents a selected time delay).

Regarding **claim 12**, Lenz also teaches the device of claim 1, wherein the communications device is a wireless communications device (see Lenz, fig. 1, component 23; col. 1,lines 6-8).

Regarding **claim 13**, Lenz also teaches the device of claim 1, wherein the communications device is one of a radio (see Lenz, col. 1, lines 6-8) a cellular phone, a cordless phone, a personal digital assistant and a computer.

Regarding **claim 14**, Lenz also teaches the device of claim 1, further comprising a headset (see Lenz, fig. 1, component 10), wherein the push-to-talk sensor or switch is mounted to the headset (see Lenz, fig. 2, components 24 and 30).

Regarding **claim 15**, Lenz teaches a communications device including hands-free push-to-talk functionality (see Lenz, col. 1, lines 53-55; fig. 1), comprising:

a hands-free push-to-talk sensor or switch (see Lenz, fig. 2, component 24; col. 2, lines 44-47) operable by at least one of a predetermined movement of the sensor or switch (see Lenz, fig. 1, Sb; col. 2, lines 47-51; a lifting movement upward by the wearer's shoulder), or air pressure, wherein the push-to-talk sensor or switch includes at least one of an accelerometer, an air pressure sensitive switch, and a tilt sensor for

sensing a change in a direction of force due to gravity (see Lenz, fig. 2, component 34; col. 2, lines 59-62; switch 24 senses a depression in the downward direction; the Examiner submits interprets the direction of force due to gravity as "downward" direction); and

a processor to control operation of the communications device in response to signals from the push-to-talk sensor or switch (see Lenz, col. 2, lines 28-30).

Regarding **claims 17, 18 and 21**, the dependent claims are interpreted and rejected for the same reasons set forth above in claims 3, 4 and 14, respectively.

Regarding **claim 22**, Lenz teaches a method for hands-free push-to-talk functionality, comprising:

detecting at least one of a predetermined movement of a motion sensor or an accelerometer (see Lenz, fig. 1, Sb; col. 2, lines 47-51; a lifting movement upward by the wearer's shoulder), a tilt angle caused by a change in a direction of force due to gravity (see Lenz, fig. 2, component 34; col. 2, lines 59-62; switch 24 senses a depression in the downward direction; the Examiner submits interprets the direction of force due to gravity as "downward" direction), or air pressure; and

controlling operation of a communications device in response to detecting a presence or absence of at least one of the preset audible signal, the predetermined movement, or air pressure (see Lenz, col. 2, lines 28-30).

Regarding **claim 25**, Lenz also teaches the device of claim 22, wherein detecting the tilt angle (see Lenz, fig. 2, component 34; col. 2, lines 59-62; switch 24 senses a depression in the downward direction; the Examiner submits interprets the direction of force due to gravity as "downward" direction) comprises detecting a tilt sensor being tiled more than a predetermined angle from normalized angle of the direction of force due to gravity (see Lenz, fig. 2, component 34; col. 1, lines 61-63 and col. 2, lines 59-62) for a predetermined duration (see Lenz, col. 3, lines 31-35).

Regarding **claims 26**, Lenz also teaches the device of claim 25, further comprising activating a transmit mode in the communication device (see Lenz, col. 2, lines 28-30) in response to detecting the tilt sensor being tilted more than the predetermined angle from the normalized angle (see Lenz, fig. 2, component 34; col. 1, lines 61-63 and col. 2, lines 59-62) for a predetermined time duration (see Lenz, col. 3, lines 31-35).

Regarding **claim 27**, Lenz also teaches the device of claim 25, further comprising:

maintaining the communications device in the transmit mode in response to at least one of detecting a voice signal or the tilt sensor being tilted more than the predetermined angle (see Lenz, col. 3, lines 31-35) after a selected time delay (see Lenz, col. 3, lines 40-43; the "click" noise presents a selected time delay).

switching the communications device to one of a receive mode or standby mode in response to an absence of at least one of detecting a voice signal or the tilt sensor being tilted more than the predetermined angle (see Lenz, col. 3, lines 31-33) after a selected time delay (see Lenz, col. 3, lines 40-43; the "click" noise presents a selected time delay).

Regarding **claim 31**, Lenz teaches a method for making a device for hands-free push-to-talk functionality (see Lenz, col. 1, lines 53-55; fig. 1), comprising:

providing a hands-free push-to-talk sensor or switch (see Lenz, fig. 2, component 24; col. 2, lines 44-47) operable by at least one of a predetermined movement of the sensor or switch (see Lenz, fig. 1, Sb; col. 2, lines 47-51; a lifting movement upward by the wearer's shoulder), or air pressure, wherein the push-to-talk sensor or switch includes at least one of an accelerometer, an air pressure sensitive switch, and a tilt sensor for sensing a change in a direction of force due to gravity (see Lenz, fig. 2, component 34; col. 2, lines 59-62; switch 24 senses a depression in the downward direction; the Examiner submits interprets the direction of force due to gravity as "downward" direction); and

providing means to control operation of a communications device in response to signals from the push-to-talk sensor or switch (see Lenz, col. 2, lines 28-30).

Regarding **claims 33 and 36**, the dependent claims are interpreted and rejected for the same reasons as set forth above in claims 2 and 14, respectively.

Regarding **claim 37**, Lenz teaches a computer-readable medium having computer-executable instructions for performing a method, comprising:

detecting at least one of a predetermined movement of a motion sensor or an accelerometer (see Lenz, fig. 1, Sb; col. 2, lines 47-51; a lifting movement upward by the wearer's shoulder), a tilt angle caused by a change in a direction of force due to gravity (see Lenz, fig. 2, component 34; col. 2, lines 59-62; switch 24 senses a depression in the downward direction; the Examiner submits interprets the direction of force due to gravity as "downward" direction), or air pressure; and

controlling operation of a communications device in response to detecting a presence or absence of at least one of the preset audible signal, the predetermined movement, or air pressure (see Lenz, col. 2, lines 28-30).

Regarding **claims 40-42**, the dependent claims are interpreted and rejected for the same reasons as set forth above in claims 25-27, respectively.

2. Claims 46-48 are rejected under 35 U.S.C. 102(b) as being anticipated by Brening (US. 4,426,733).

Regarding **claim 46**, Brening teaches a device for hands-free push-to-talk functionality (see Brening, col. 1,lines 10-17), comprising:

a hands-free push-to-talk sensor or switch (see Brening, col. 2, lines 18-19; microphone) operable by a present audible signal (see Brening, col. 2, lines 20-22), wherein the preset audible signal is one of a static signal, white noise signal, or a predefined keyword, group of keywords (see Brening, col. 3, lines 13-16 and col. 4, lines 28-29), number, or group of keywords and numbers; and

means to control operation of a communications device in response to signals from the push-to-talk sensor or switch (see Brening, col. 2,lines 26-28).

Regarding **claim 47**, Brening also teaches the device of claim 46, wherein a transmit mode of the communication device is activated in response to the audible signal detector detecting the preset audible signal (see Brening, col. 2, line 16; "transmit"; and col. 4, line 31).

Regarding **claim 48**, Brening also teaches the device of claim 46, further comprising means for switching the communication device to one of receive mode or a standby mode in response to an absence of at least one of detecting a voice signal or the preset audible signal (see Brening, col. 2, line 16; "receive"; and col. 4, line 31) after a selected time delay (see Brening, col. 5, lines 64-65).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 9-11, 20, 28-30, 35 and 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lenz as applied to claims 1, 15, 22, 31 and 37, respectively above, and further in view of Brening and Murray (US Pub No. 2005/0136848 A1).

Regarding **claim 9**, Lenz teaches the device of claim 1.

Lenz is silent to teaching that wherein the push-to-talk sensor or switch comprises the air pressure sensitive switch, wherein a transmit mode of the communications device is activated in response to the air pressure sensitive switch receiving a preset air pressure. However, the claimed limitation is well known in the art as evidenced by Brening and Murray.

In the same field of endeavor, Brening teaches a push-to-talk sensor or switch comprises a microphone (see Brening, col. 2, lines 18-19; microphone), wherein a transmit mode of the communications device is activated in response to the microphone receiving a preset audible signal (see Brening, col. 2, line 16; "transmit"; and col. 4, line 31).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Lenz with the teaching of Brening in order to provide improved hands-free operation and provide voice operation for the PTT headset (see Brening, col. 3, lines 21-26).

The combination of Lenz and Brening is silent to teaching that the microphones of the Brening comprises an air pressure sensitive switch and wherein a transmit mode of the communications device is activated in response to the air pressure sensitive switch receiving a preset air pressure. However, the claimed limitation is well known and obvious as evidenced by Murray.

In the same field of endeavor, Murray teaches a push-to-talk switch (see Murray, para. [0030], lines 1-5), wherein the microphone comprises an air pressure sensitive (see Murray, para. [0033], lines 20-30) and wherein a audible signal is produced in response to the air pressure sensitive switch receiving a preset air pressure (the microphone receiving an air pressure greater than an ambient air pressure produces a voice signal presenting the preset air pressure).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Lenz and Brening with the teaching of Murray in order to implement or improve the quality of the microphone of Brening (see Murray, para. [0006]).

Regarding **claim 10**, the combination of Lenz, Brening and Murray teaches the device of claim 9, further comprising means for maintaining the communications device in a transmit mode in response to at least one of detecting a voice signal or the preset air pressure (see Brening, col. 2, line 16; “transmit”; and col. 4, line 31) after a selected time delay (see Brening, col. 5, lines 64-65).

Regarding **claim 11**, the combination of Lenz, Brening and Murray also teaches the device of claim 9, further comprising means for switching the communications device to one of a receive mode or standby mode in response to an absence of at least one of detecting a voice signal or the preset air pressure after a selected time delay (see Brening, col. 5, lines 39-49; fig. 5; after 35 seconds, step 57 and step 65, without any audible command, the processor returns to standby mode 51).

Regarding **claim 20**, the dependent claim is interpreted and rejected for the same reasons as set forth above in claim 9.

Regarding **claim 28**, Lenz teaches the method of claim 22.

Lenz is silent to teaching that further comprising detecting an air pressure greater than a preset air pressure. However, the claimed limitation is well known in the art as evidenced by Brening and Murray.

In the same field of endeavor, Brening teaches a method for push-to-talk sensor or switch comprising:

detecting an audible sound by a microphone (see Brening, col. 2, lines 18-19; microphone).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Lenz with the teaching of Brening in order to provide improved hands-free operation and provide voice operation for the PTT headset (see Brening, col. 3, lines 21-26).

The combination of Lenz and Brening is silent to teaching that the microphone detecting an air pressure greater than a preset air pressure. However, the claimed limitation is well known and obvious as evidenced by Murray.

In the same field of endeavor, Murray teaches a method for a microphone (see Murray, para. [0030], lines 1-5) comprising:

detecting an air pressure (see Murray, para. [0033], lines 20-30) greater than a preset air pressure (the microphone receiving an air pressure greater than an ambient air pressure produces a voice signal presenting the preset air pressure).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Lenz and Brening with the teaching of Murray in order to implement or improve the quality of the microphone of Brening (see Murray, para. [0006]).

Regarding **claim 29**, the combination of Lenz, Brening and Murray also teaches the method of claim 28, further comprising activating a transmit mode in the communications device in response to detecting the air pressure greater than the preset air pressure (see Brening, col. 2, line 16; “transmit”; and col. 4, line 31).

Regarding **claim 30**, the combination of Lenz, Brening and Murray also teaches the method of claim 29, further comprising:

maintaining the communications device in the transmit mode in response to at least one of detecting a voice signal or the preset air pressure (see Brening, col. 2, line

16; "transmit"; and col. 4, line 31) after a selected time delay (see Brening, col. 5, lines 64-65); and

switching or maintaining the communications device in one of a receive or standby mode in response to an absence of at least one of a voice signal or the preset air pressure (see Brening, col. 2, line 16; "receive"; and col. 4, line 31) after the selected time delay (see Brening, col. 5, lines 64-65).

Regarding **claim 35**, the dependent claim is interpreted and rejected for the same reasons as set forth above in claim 9.

Regarding **claims 43-45**, the dependent claims are interpreted and rejected for the same reasons as set forth above in claims 28-30, respectively.

Response to Arguments

Applicant's arguments with respect to claims 1, 15, 22, 31 and 37 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen W. Huang whose telephone number is (571) 272-7852. The examiner can normally be reached on 10am - 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on (571) 272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

wwh

3/18/07

Matthew D. Anderson
Supervisory Patent Examiner